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(56) Documents cited

GB 1520839 A

GB 0606923 A

GB 0556053 A

GB 0502511 A

GB 0398940 A

GB 0334723 A

US 4161799 A

(58) Field of search

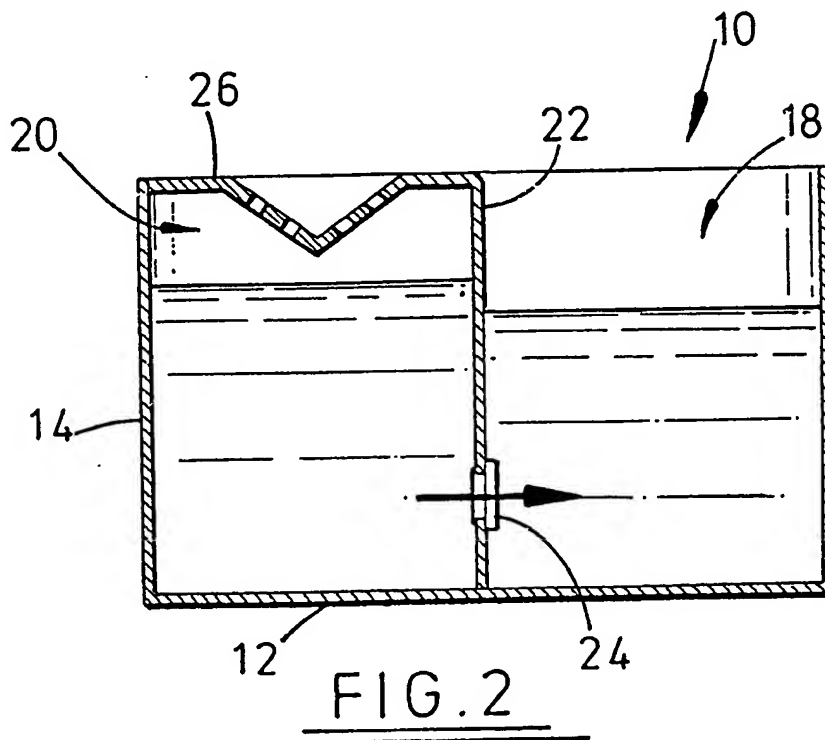
UK CL (Edition K) A4A AG AK APE, A4F FHA, B8D

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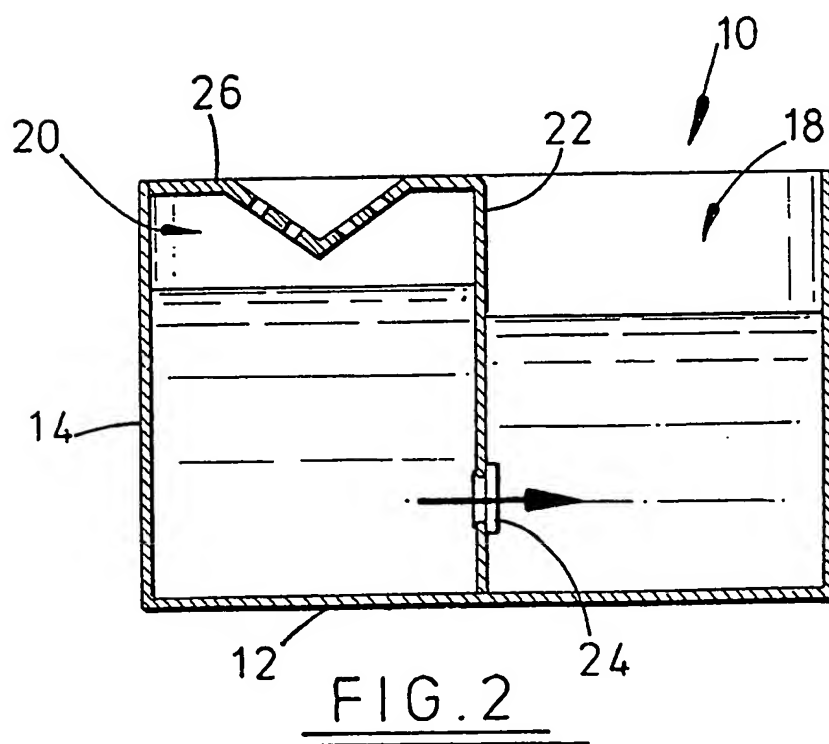
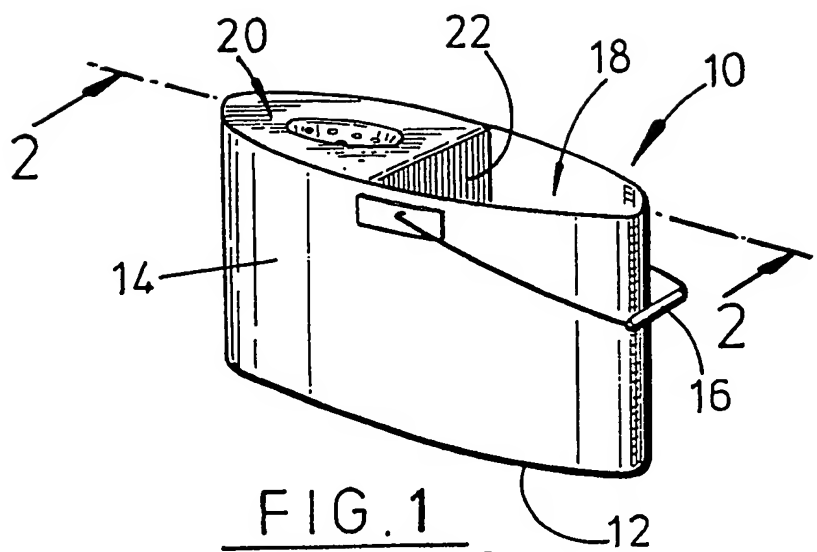
INT CL<sup>5</sup> A47J

(54) Liquid container provided with a filter

(57) A liquid container (10) for use in cleaning operations is formed with two adjacent compartments (18, 20) which are in fluid communication via a filter member (24). A mop wringing top (26) is fitted over compartment (20) which receives dirty water. The clean water in compartment (18) is replenished by returned water delivered to compartment (20) and cleaned by the filter member (24) during its transit to compartment (18).



GB 2 260 691 A



- 1 -

## LIQUID CONTAINER

This invention relates to a liquid container, and in particular but not exclusively to a water container for use in cleaning operations.

Many cleaning operations which are carried out by hand involve the use of water. For convenience, the water is normally contained in a bucket or pail from which an operator will wet a sponge or mop. After the cleaning operation, for example the mopping of a floor, the mop, carrying dirty water lifted from the floor, is wrung out into the bucket. The operations continue until the water in the bucket become too dirty for efficient cleaning and has to be replaced. Replacing the water may take some time, particularly if the water drain and faucet (tap) are a significant distance from the area being cleaned. Also, the emptying, filling, and carrying of a water filled bucket can be quite strenuous.

It is an object of the present invention to obviate or mitigate the abovementioned disadvantages.

According to the present invention there is provided a container for containing liquid, the container comprising two open-topped compartments, and means providing for liquid communication between the compartments when the container is in use, said means incorporating a filter member.

In use, the liquid container may be used in a cleaning operation for storage of a washing liquid, typically water. Both compartments of the container are initially filled with clean water, and water used for cleaning is removed from a first compartment, for example by wetting a mop, and after mopping the mop is wrung out into the second compartment. As water has been removed from the first compartment and added to the second compartment, water tends to flow from the second compartment, through the filter member, into the first compartment until the water levels are equal thereby replenishing that volume of water. As the "dirty" water flows through the filter, particles of dirt are prevented from passing into the first compartment, the water in which remains relatively clean.

Preferably, the filter member is removable and thus may be readily cleaned or replaced.

The container may be in the form of a bucket or pail provided with a removable or fixed partition to divide the container into two compartments. When the portion is removable it may be made of a suitable filtering material so as to form the filter member. An attachment to facilitate wringing out of mops and the like may be provided above one of the compartments.

This and other aspects and the present invention will now be described, by way of example, with reference to the accompanying drawing, in which;

Figure 1 is a perspective view of a liquid container in accordance with a preferred embodiment of the present invention; and

Figure 2 is a sectional view on line 2-2 of Figure 1.

The drawing illustrates a liquid container in accordance with a preferred embodiment of the present invention in the form of a twin compartment pail 10. The pail 10 is of substantial construction, having a base 12, an elliptical side wall 14 and a carrying handle 16. Dividing the pail 10 into first and second compartments 18, 20 is a partition member 22 provided adjacent the base 12 with an aperture housing a removable filter 24. Located above the first compartment 18 is a removable mop/drip top 26 having a cone-shaped depression provided with a multiplicity of apertures. Top 26 may be integral with the compartment 20 or may be a releasable attachment.

In use, both compartments 18, 20 are initially filled with water above the level of the filter 24 . Water for cleaning is removed from the first compartment 18 while "dirty" water is returned to the second compartment 20. The filter 24 provides a conduit for liquid communication between the compartments 18, 20, such that the level of water in the compartments 18, 20 tends to equalise. Thus, when clean water is removed from the first compartment 18 and later returned, carrying dirt, to the second compartment 20, water tends to flow through the filter 24 into the first compartment 18. As the water

flows through the filter 24, larger particles of dirt are removed from the water, such that the water in the first compartment 18 remains relatively clean. In this manner, a cleaning operation can be continued for a relatively long period without requiring a change of water, thus providing a considerable saving in time and effort, and also permitting more economical use of water.

The filter 24 is removable such that it may be readily cleaned or replaced and may be formed of any suitable fibrous or porous material.

## CLAIMS

1. A container for containing liquid, the container comprising two open-topped compartments, and means providing for liquid communication between the compartments when the container is in use, said means incorporating a filter member.
2. A container as claimed in claim 1, wherein the container is formed by a single open-topped housing with an internal portion to divide it into said two compartments, and said means is an aperture in the portion, the filter member being releasably secured over the aperture to the portion.
3. A container as claimed in claim 2, wherein the housing has a generally elliptical cross-sectional shape.
4. A container as claimed in any preceding claim, and including a carrying handle.
5. A container as claimed in any preceding claim, and including an attachment for fitting over the top of one of the compartments, the attachment having a cone-shaped depression which is provided with a multiplicity of apertures for wringing out a mop or the like.

6. A container as claimed in claim 1 and substantially as hereinbefore described with reference to the accompanying drawing.



-7-

**Patents Act 1977**  
**E. Examiner's report to the Comptroller under**  
**Section 17 (The Search Report)**

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**Relevant Technical fields**

(i) UK CI (Edition K ) A4A (APE, AK, AG)  
 B8D (DSC1, DSC2)  
 A4F (FHA)  
 A47J

(ii) Int CI (Edition 5 )

**Search Examiner**

DR C L DAVIES

**Databases (see over)**

(i) UK Patent Office

(ii)

**Date of Search**

10 DECEMBER 1992

Documents considered relevant following a search in respect of claims 1-6

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 1520839 A (VAZQUEZ) see Figure and page 2 lines 41-47	1,2,4,5
X	GB 0606923 A (BROWNLOW) see whole document especially Figure	1,2
X	GB 0556053 A (MACKAY) see Figure 1 and page 1 lines 48-49	1,2,3,4
X	GB 0502511 A (HAWES) see Figure 1 and	1,2,4
X	GB 0398940 A (SMITH) see Figure 4	1,4
X	GB 0334723 A (BROWN) see Figures 1 and 6	1,4
X	US 4161799 A (SORRELLS) see whole document especially column 2 and lines 23-29; lines 49-51	1,2,3, 4,5

Category	Identity of document and relevant passages	Relevant to claim(s).

### Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

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